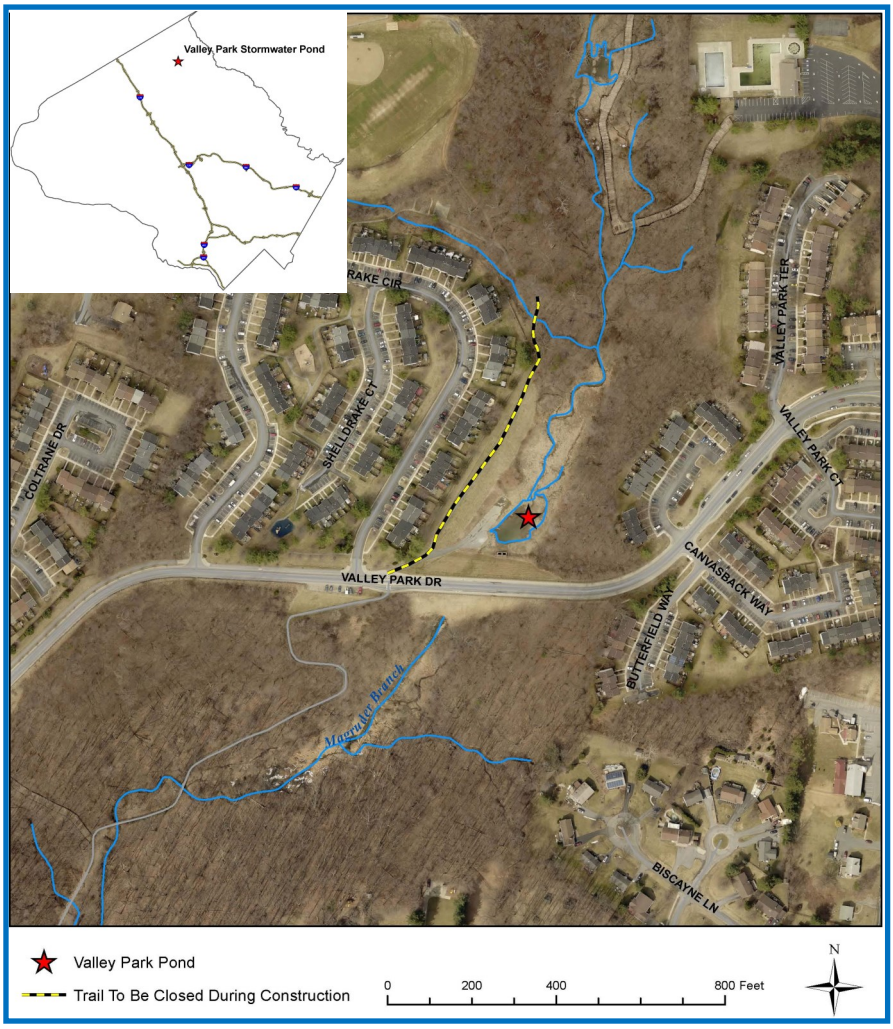
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND

Storm Water Management Facility Retrofit FACT SHEET:

Valley Park Regional Stormwater Management Pond



Valley Park Storm Water Management Facility Facts:

Original Pond Construction Date: 1984

Drainage Area: 227 acres

Impervious Cover: 74 acres (32.5%)

Property Ownership: Maryland National Capital Park and Planning Commission

Watershed: Great Seneca Creek - Magruder Branch

Limits of Disturbance: 2 Acres

Project Status: Final Design

Estimated Construction Start Date: Fall 2016

Estimated Completion Date: Spring 2017

Restoration Goals:
Upgrade stormwater pond to comply with current Maryland (MDE) storm water management regulations and safety standards, repair and upgrade pond infrastructure, improve water quality in the pond and downstream in Magruder Branch, improve aquatic vegetation in and around the stormwater pond.

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Project Selection

As part of Montgomery County's ongoing commitment to protect and improve our water resources, Valley Park Pond was identified for improvements to repair and replace aging infrastructure and bring the pond into compliance with current safety and water quality performance standards set by Maryland Department of the Environment (MDE). The Montgomery County Department of Environmental Protection (DEP) has evaluated the biological, chemical, and habitat condition of streams throughout the county, and identified impaired "priority" sub-watersheds for restoration. Magruder Branch, which receives water from the Valley Park Pond, was identified as impaired and recommended for restoration. Improvements to the Valley Park pond are part of the Magruder Branch watershed restoration effort. The project is listed in the Great Seneca Watershed Implementation plan which details how the county will improve water quality in streams and meet requirements issued by the state of Maryland. Additionally, this facility was chosen for improvements because of its age and need of maintenance.

Pre-Retrofit Conditions

Valley Park Pond was constructed in 1984, prior to current stormwater management regulations and receives runoff from 227 acres which includes most of Damascus town center. Uncontrolled storm water runoff from impervious surfaces such as roads, parking lots and rooftops causes erosive, high velocity or "flashy" storm flows that erode stream channels resulting in significant amounts of sediment deposited in downstream waterbodies such as Valley Park Pond. The pond has effectively trapped the sediment, preventing it from impacting aquatic habitat downstream in Magruder Branch, achieving one of it's primary objectives. However, the existing riser structure does not meet current MDE storm water management standards allowing higher flow rates to pass through the riser structure during storms than is currently permitted. Additionally, the water storage capacity has diminished over it's service life due to sediment deposition in the pond.

Post-Retrofit Conditions

To achieve the required water storage volume, accumulated sediment will be removed from the pond and the permanent pond level will be raised from existing level by 5.5 feet. After sediment removal and riser modification the pond depth will vary from 1 foot around the perimeter to 12 feet at the riser structure. A forebay at the upper end of the pond will be constructed to trap sediment and debris for easier removal during periodic pond maintenance. Around the perimeter of the pond wetland perennial plants will be planted to provide habitat for aquatic organisms, pollinators, birds and other pond life. Trees and shrubs will be planted upslope from the waters edge and a large area of wildflower meadow will be established between the hiker/biker trail and the pond (see reverse side for list of plants). A six foot wide strip of turf grass will be maintained between the hiker/biker trail and the wildflower meadow.

Existing riser structure at valley Park Pond. Woody debris and sediment buildup around the riser has caused blockage of base flow numerous times during the facility's service life. The retrofit will alleviate this problem by installing a forebay and debris racks

Native plantings, like those in above photo, will be planted around the perimeter of the permanent pool to improve aquatic habitat in the pond.

Pond Improvement Actions

- Remove accumulated sediments to provide the required storage volume
- Increase the permanent pool depth by 5.5 feet at the riser resulting in pond depth from between 1 and 12 feet
- Construct a forebay at the upper end of the pond to intercept sediment and debris for removal during future pond maintenance
- Modify the riser structure to comply with current stormwater criteria and replace aging infrastructure
- Install a safety bench around the entire perimeter of the pond
- Landscape pond perimeter and surrounding side slopes with native plants to improve water quality and habitat for pond wildlife
- Stabilize storm drain outfall locations with appropriate riprap stone to prevent erosion from stormwater

What To Expect During Construction

- Construction will occur weekdays only from 7am –4pm
- Duration of construction is expected to be approximately 9 months
- Hiker/Biker trail will be closed north of Valley Park Drive for the duration of construction
- Sidewalk along the north side of Valley Park Drive will be closed during the construction period between Shelldrake Circle and Canvasback Terrace
- Pedestrian island for hiker/biker trail crossing of Valley Park Drive will be removed to allow for construction vehicle access
- Dump trucks entering and exiting work area from Valley Park Drive
- Stream will be diverted during construction to prevent downstream impacts from sediment

Pond Landscaping Plant List

Trees and Shrubs		Wetland Perennials		Wildflower Meadow Seed Mix
Red Maple	7	Pickerelweed	200	Deartongue
White Oak	6	Rose Mallow	200	Virginia Wildrye
Red Oak	8	Blue Flag Iris	200	Broomsedge
		Threesquare	200	Purpletop
Buttonbush	57	Soft Rush	200	Blackeyd Susan
Winterberry	78	Joe Pye Weed	120	Purplestem Aster
		Virginia Wildrye	120	Early Goldenrod
		Loosestrife	120	
		Goldenrod	120	
		Common Rush	120	

Rosemallow, Hibiscus

Pickerelweed

Common Threesquare

For more information:

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https://www.montgomerycountymd.gov/DEP/Restoration/valley-park.html